so why do we offer the little finger? Why should people be obligated to feed other people? What have these other people done to deserve this? Why? So, they are Americans. What else? Is that enough of a reason for the betteroff to carry a greater burden than the less-well-off?

In closing I would further point out that our proportional income tax is one of the proposals of Karl Marx in DAS KAPITAL and the COMMUNIST MANIFESTO to reduce the upper class and to bring it to the same level as the poor, the basic tenet of the Communist Society. Think about it!

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one of the most promising new fields of endeavor for amateur radio is slow-scan television. On November 28, 1966 at 11:30 P.M. the first picture transmission via amateur radio using slow scan techniques on the lower frequency bands took place between KC4USV at Mc Murdo Sound and W7FEN in Monroe, Washington, on the 14 Mc band with special permission from the FCC. This was the first time Television in any form has been allowed below 420Mc.

A proposal is now before the FCC to extend this privilege to all licensed amateurs.

Though not directly related to amateur radio, a number of amateurs all over the world who could not pass up the challenge have been receiving excellent pictures from the Nimbus weather satellites.

We have not heard of any attempts by amateurs to use Lasers in communication work, but a number of them are building and experimenting with Lasers.

By the end of the year who knows what will be next.

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# FROM LEYDEN JARS TO LASERS

**by Lee Michaud**
**Vice President W9HHX**

Of the many facets of Amateur Radio, perhaps two of the most important are Public Service and the Advancement of the Radio Art.

Most people have been exposed to the public service aspect through newspaper and magazine articles covering amateur service during hurricanes, tornadoes, earthquakes, and other natural disasters. Our purpose here is to briefly review some of the last few years' work in advancing the art of radio communication.

With the increased congestion of the lower frequency bands, many amateurs are turning to the VHF bands. The reams of log pages compiled by thousands of VHF enthusiasts are a massive testimonial of the capability, reliability, and quirks of the VHF bands for communications in all types of weather, terrain, and atmospheric conditions. Tremendous amounts of data have been collected on antenna types, equipment and circuit capabilities, and operating techniques.

Long distance communication techniques using F-layer, E-layer, and meteor showers are constantly being improved. Considerable attention is also being devoted to the effects of sunspot activity and weather phenomena.

A favorite pastime of many VHF and UHF enthusiasts is communications via satellite. Since the early 1960's, radio amateurs have provided for the launch of four satellites called OSCARS, one through four. These satellites have varied from simple beacons to frequency translators including telemetry of pertinent satellite data.

The responsibility of organizing, constructing, testing, and providing satellites for launch has been assumed by "Project OSCAR Inc.," a non-profit affiliate of the "American Radio Relay League."

OSCAR five may be up before the end of the year. An Australian developed package has just arrived in the U.S. and another unit built by a group in Germany is reported to arrive soon. In addition, there are two groups in California working on satellites to be made available for launch upon completion.

Yet another area of interest is moon bounce or e.m.e. (earth-moon-earth) communication. Amateurs using home built antennas perched in their back yards have succeeded in communicating via the moon on VHF bands using just a few hundred watts. Many of these contacts have taken place between the U.S. and other countries.

Current point to point distance records via the moon are from 10,417 miles on 144Mc to 5,920 miles on 1215Mc.

Meanwhile, on the low frequency bands,